

Podcasting and Digital Video in the Classroom: A Call for Research

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Abstract

A case is directed at digital immigrants to utilize mobile computing devices such as an Apple iPod to deliver content to students in self-contained special education classrooms. The author discusses the current state of the use of iPods in classrooms, and how research using these devices has been limited to institutions of higher learning, while leaving the K-12 arena almost devoid of use. Research using this mode of treatment is in its infancy, leaving the field wide-open for willing participants with tremendous upside for the students we are teaching.

Podcasting and Digital Video in the Classroom

Often times, finding a method of service delivery that works in our classrooms is a difficult proposition. With the relatively small numbers of students we work with in self-contained classrooms, many companies don't find it economically feasible to develop products for utilization in our classrooms that we can purchase for a reasonable amount, so commercial products are often out of the question. However, with the trappings of NCLB and the requisite assessments that are now becoming inherent in our classroom domain, it is imperative that we find some ways on our own to develop content that can be successfully used over and over again with our students.

Video has a tremendous advantage over other methods, since all we need to do to replicate the last lesson is to rewind and press the 'play' button. Many of us as digital immigrants, however, still have a difficult time accepting and using technology in our classrooms. We must realize that our students process information much differently than we ever did (Prensky, 2001), and that we need to change our ways of content delivery if the students are going to be successful. Just because our students have a disability does not preclude them from being able to avail themselves of new technologies.

Of late, many methods of utilizing video in the classroom have been delivered to students using a new technology that better suits the student population and their ability to interact with the medium. Over the last 20 years, there have been a number of studies that have addressed the use of video in a variety of formats in classrooms serving moderate and severely intellectually disabled students along with students who have been classified as being autistic. In a review of the literature by Mechling (2005), 24 studies from 1999 to 2003 that utilized a form of video were investigated. Findings from the analysis included the identification of six different video procedures that had recently been utilized. Those methods included video feedback, video modeling (VM), video self-modeling (VSM),

subjective point-of-view, interactive video prompting and computer-based video instruction (CBVI). From a positive perspective, 91.3% of the studies looked at found a positive outcome for instructor-based video programs that used one of the six methods mentioned across a range of skills that these students needed and that teacher-made programs can be a successful strategy and support for in vivo instruction.

Due to its size and portability, Apple Computer's iPod is becoming a popular delivery method for several types of video modeling strategies that have previously utilized computers and portable DVD players. The iPod was a key component in a study that looked to improve the transition of students with Autism Spectrum Disorders (ASD) in a public school setting (Cihak, Fahrenkrog, Ayres, & Smith, 2010). In this case, video modeling was provided for the participants and allowed them to transition between classes, usually a difficult task for students with ASD. The size of the device allowed the participants to remain inconspicuous while utilizing it to traverse the hallways. It has shown potential for being a valuable tool in the repertoire of special educators.

Current iPod Usage

Usage of the iPod for educational purposes is in its infancy, as the first article mentioning the use of a device was published in 2007, in *The New York Times* (Auchincloss & McIntyre, 2008). The use of podcasting in education has taken a variety of forms, as was found when completing a recent search of the EBSCOhost database using the terms, 'special education' and 'vodcasting' or 'podcasting' or 'vodcast' or 'podcast' or 'iPod.' In this short review of the literature, only looking at peer-reviewed journals from 2006 until 2010, a total of 44 articles were found. Among these articles were a total of four qualitative studies and three quantitative research studies (Bess, Jackson, Moran, & Newman, 2010).

Twenty-four of the articles discussed topics such as about 'how to podcast,' the history of podcasts, and an overview of podcasts in general. Seven articles were surveys of iPod use, along with one literature review, two anecdotal articles and three that were classified as miscellaneous. The articles found were in the fields of communication or information services, various performance activities with only one article in athletics and special education. Most notably absent was the math area. Grade levels of articles included three from elementary schools, one from middle and high school, and the balance of 33 articles from college and beyond. Grade levels of research articles followed a similar ratio, with one study from elementary, one study from middle and five studies from college and beyond (Bess, et al., 2010).

From these data collected, some conclusions were made by Bess et al., (2010) most importantly, that quantitative data need to be collected that will address the issue of actual iPod or mobile computer use with students in a variety of fields and subject areas. It was found that qualitative data that were collected addressed the factors of 'newness' and 'coolness' along with motivation. Three of the survey studies said the majority of people use an iPod, not a personal computer for podcasts while a review of the literature said just the opposite.

An additional conclusion reached by the panel (Bess, et al., 2010) was that the time for surveys of use and introductory articles has past and that serious research needs to be undertaken that will address some of the holes that were uncovered in this review. Studies appear to be quite prevalent at the college and post-college levels, with podcasts being utilized for lectures and supplemental material for the most part. Areas of future research include addressing the K-12 area, especially in the fields of math, and special education across categories. In addition, questions arose including what learning style would most benefit from podcasts, whether the author of the podcast made a difference, and where specifically most podcasts were being viewed, whether being used with a mobile computing device or a stand-alone computer. Finally, the recognition was made that the present research on the usage of podcasting and mobile computing devices is in its infancy, indicating that longitudinal studies need to planned and executed for the field to develop and prosper.

A recent study by Cihak, et al., (2010) took advantage of some of the positive aspects of the device with students having Autism Spectrum Disorders (ASD). The size of the tool is such that it is easily used anywhere a student will be during the school day. In addition, the student can view the task in question on multiple occasions, or anytime additional reminders are needed to complete the task. Previous studies that had had success utilizing video modeling were constrained by the size of the equipment and were required to view the video in a specific setting. (Cihak et al., 2010). This obstacle has been removed by this recent technology.

An additional advantage in the use of an iPod is the ‘cool’ factor experienced by students with disabilities when using one (Taber-Doughty, Patton, & Brennan, 2008). The novelty of this type of technology has been shown to be the determining factor in the choice of a device to complete tasks. The use of video in classrooms for students with disabilities has advanced from a technology that was tied to the classroom or school due to the size of the equipment, to a technology that can deliver instantaneous video on any work site at any time. Although the use of the technology requires quite a bit of teacher planning time, once groups of teachers begin to develop and share their libraries of video, students with moderate intellectual disabilities will definitely be the benefactors.

Conclusion

While the prospect of learning and developing digital video for use in a self-contained special education classroom may be especially daunting for the many digital immigrants who still populate classrooms across the country, the results could be beneficial to both the students and the teachers involved. Starting a research project is not as hard as it often appears and the present state of the field is wide open. In addition, the potential benefits to our students are reason enough for utilizing this particular method of content delivery. What a great opportunity for the budding researcher to get their feet wet!

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